

WHAT IS CLAIMED IS:

1. An apparatus for driving an embroidery frame of a multi-headed embroidery machine including an embroidery frame for holding fabrics, a plurality of heads having a plurality of needles, an X-axis driving unit for supplying the embroidery frame with power necessary for movement in the X-axis direction, a Y-axis driving unit for supplying the embroidery frame with power necessary for movement in the Y-axis direction, and a drive-control unit for outputting X-axis and Y-axis drive-control signals to control the X-axis and Y-axis driving units respectively, characterized by the X-axis driving unit or the Y-axis driving units and the drive-control unit comprising:
 - a linear motor section having a plurality of linear motors connected externally;
 - a controller outputting a linear motor driving signal;
 - a driver for driving the plurality of linear motors simultaneously by supplying a linear motor of the linear motor section with a driving current according to the linear motor driving signal from the controller; and
 - a linear scale for feedback of an output signal, produced by the movement (degree of travel) of the linear motors, into the driver to control the movement of the linear motors actuated by the driver.

2. The apparatus as claimed in claim 1, wherein each of the linear motors of the linear motor section comprises a movable block and both ends of the windings within the movable
5 block are drawn out.

3. The apparatus as claimed in claim 1, wherein the linear motors of the linear motor section are connected in series or in parallel as a Y-connection.